United Nations A/71/644

General Assembly

Distr.: General
1 December 2016

Original: English

Seventy-first session
Agenda item 19 (c)
Sustainable development: disaster risk reduction

Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction

Note by the Secretary-General

The Secretary-General has the honour to transmit herewith the report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction established by the General Assembly in its resolution 69/284 for the development of a set of possible indicators to measure global progress in the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, coherent with the work of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators, and the update of the publication entitled "2009 UNISDR Terminology on Disaster Risk Reduction".

16-21184 (E) 091216

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I. Introduction

1. By its resolution 69/284 of 3 June 2015, the General Assembly established an open-ended intergovernmental expert working group comprising experts nominated by States and supported by the United Nations Office for Disaster Risk Reduction, with the involvement of relevant stakeholders, for the development of a set of possible indicators to measure global progress in the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, coherent with the work of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators. The Assembly decided that the working group should consider, as appropriate, the recommendations of the Scientific and Technical Advisory Group of the United Nations Office for Disaster Risk Reduction on the update of the publication entitled "2009 UNISDR Terminology on Disaster Risk Reduction", and also decided that the work of the working group should be completed by December 2016 and its report submitted to the Assembly for consideration.

II. Organizational matters

A. Opening and duration of the sessions

2. The working group held its first session on 29 and 30 September 2015, its second session on 10 and 11 February 2016 and its third session on 15 and 18 November 2016. All of the sessions were held in Geneva.

3. The first session was opened by the Special Representative of the Secretary-General for Disaster Risk Reduction. At the first meeting, on 29 September 2015, the Special Representative made a statement.

4. The second and third sessions were opened by the Chair of the working group (see para. 7). The Special Representative also made a statement at the first meeting of each session.

5. The United Nations Office for Disaster Risk Reduction provided substantive support to the working group. The Disarmament and Peace Affairs Branch of the Department for General Assembly and Conference Management served as the secretariat of the working group.

B. Attendance

6. The list of the nominated experts and delegates and other stakeholders registered for the working group is included in the annex to the present report.

C. Officers

7. At its first meeting of the first session, on 29 September 2015, the working group elected by acclamation Wayne McCook (Jamaica) as Chair.

D. Adoption of the agenda

8. At the same meeting, the working group adopted its provisional agenda (A/AC.285/1) for all its sessions, which read as follows:

1. Election of officers.
2. Adoption of the agenda and other organizational matters.
3. Indicators to measure global progress in the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.
4. Disaster risk reduction terminology.
5. Other matters.
6. Adoption of the report.

9. At the same meeting, in accordance with paragraph 7 of General Assembly resolution 69/284, the working group decided on the modalities for the participation of relevant bodies and organizations of the United Nations system, as well as relevant intergovernmental and non-governmental organizations and other stakeholders.

E. Organization of work

10. Also at the same meeting, the working group approved its provisional calendar and programme of work (A/AC.285/2), in accordance with paragraph 5 (b) of General Assembly resolution 69/284. Changes in the calendar and programme of work were communicated through the website of the working group (see http://www.preventionweb.net/drr-framework/open-ended-working-group/).

F. Documentation

11. The working group had before it the following documents:

(a) Provisional agenda (A/AC.285/1);

(b) Provisional calendar and programme of work (A/AC.285/2);

(c) Report of the Chair of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction on the results of informal consultations from February to November 2016 on indicators and terminology relating to disaster risk reduction (A/AC.285/CRP.1);

(d) Recommendations of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction (A/AC.285/CRP.2 and Rev.1-3).

G. Proceedings of the working group

12. At its first session, the working group considered agenda items 1 to 5 at its plenary meetings. The session was preceded by one-day informal meetings.

13. At its second session, the working group considered agenda items 3 and 5 at its plenary meetings and decided to defer its consideration of item 4 to the next session. The session was preceded by one-day informal meetings.

14. At its third session, the working group considered agenda items 3 to 6 at its plenary meetings. The working group also held informal meetings from 14 to 18 November 2016.

15. During the intersessional periods, the Chair of the working group conducted a series of informal consultations in Geneva, with the participation of delegates and experts in other locations through WebEx, on 20 and 21 June, 10 and 11 October and 9 and 14 November 2016.

16. In accordance with paragraph 7 of General Assembly resolution 69/284, contributions were also made to the work of the working group by relevant bodies and organizations of the United Nations system, as well as relevant intergovernmental and non-governmental organizations and other stakeholders. That last category consisted of representatives of civil society organizations, local governments, the private sector and academic and scientific institutions.

17. The working group discussed questions related to the definition of global indicators to effectively measure progress towards the achievement of the seven global targets of the Sendai Framework and, as relevant, the Sustainable Development Goals, as well as questions related to suitable terminology related to disaster risk reduction to facilitate the implementation of the Sendai Framework and foster cooperation across nations, sectors and stakeholders. In addition, the working group discussed questions related to the implementation and use of the global indicators, including States' review of the readiness of data to report, data disaggregation, the definition of baselines and the development of technical guidance for the use of the Sendai Framework monitoring mechanism, as well as the importance of reporting on disaster risk investments.

III. Adoption of the report

18. At its third meeting of the third session, on 18 November 2016, the working group considered agenda item 6, entitled "Adoption of the report". The working group adopted its report as orally revised (see A/AC.285/L.1), and its recommended indicators for the global targets of the Sendai Framework, the follow-up to and operationalization of the indicators and its recommended terminology relating to disaster risk reduction, as orally revised (see A/AC.285/CRP.2/Rev.3). The working group also agreed to submit the recommendations to the General Assembly at its seventy-first session for its consideration and appropriate action.

19. At the same meeting, an explanation of position was made by the representative of the United States of America, noting that the United States strongly supported disaster risk reduction and remained committed to working with the international community towards the common goal of reducing disaster risk and building resilience worldwide, and that it joined the consensus on the adoption of the Sendai Framework, but wished to underscored its concerns and dissociated itself from certain paragraphs, including those on financing, international cooperation and the transfer of technology, and maintained the concerns set forth in its explanation of position on the Sendai Framework.

IV. Recommendations of the open-ended intergovernmental expert working group on global indicators for the global targets of the Sendai Framework for Disaster Risk Reduction 2015-2030 and on the follow-up to and operationalization of the indicators

A. Global targets

Global target A: Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared with 2005-2015.	
A-1 (compound)	Number of deaths and missing persons attributed to disasters, per 100,000 population.
A-2	Number of deaths attributed to disasters, per 100,000 population.
A-3	Number of missing persons attributed to disasters, per 100,000 population.
	The scope of disaster in this and subsequent targets is defined in paragraph 15 of the Sendai Framework for Disaster Risk Reduction 2015-2030 and applies to small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by natural or man-made hazards, as well as related environmental, technological and biological hazards and risk

Global target B: Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared with 2005-2015.	
B-1 (compound)	Number of directly affected people attributed to disasters, per 100,000 population.
B-2	Number of injured or ill people attributed to disasters, per 100,000 population.
B-3	Number of people whose damaged dwellings were attributed to disasters.
B-4	Number of people whose destroyed dwellings were attributed to disasters.
B-5	Number of people whose livelihoods were disrupted or destroyed, attributed to disasters.

Global target C: Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.	
C-1 (compound)	Direct economic loss attributed to disasters in relation to global gross domestic product.
C-2	Direct agricultural loss attributed to disasters. *Agriculture is understood to include the crops, livestock, fisheries, apiculture, aquaculture and forest sectors as well as associated facilities and infrastructure.*
C-3	Direct economic loss to all other damaged or destroyed productive assets attributed to disasters. *Productive assets would be disaggregated by economic sector, including services, according to standard international classifications. Countries would report against those economic sectors relevant to their economies. This would be described in the associated metadata.*
C-4	Direct economic loss in the housing sector attributed to disasters. *Data would be disaggregated according to damaged and destroyed dwellings.*
C-5	Direct economic loss resulting from damaged or destroyed critical infrastructure attributed to disasters. *The decision regarding those elements of critical infrastructure to be included in the calculation will be left to the Member States and described in the accompanying metadata. Protective infrastructure and green infrastructure should be included where relevant.*
C-6	Direct economic loss to cultural heritage damaged or destroyed attributed to disasters.

Global target D: Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.	
D-1 (compound)	Damage to critical infrastructure attributed to disasters.
D-2	Number of destroyed or damaged health facilities attributed to disasters.
D-3	Number of destroyed or damaged educational facilities attributed to disasters.

D-4	Number of other destroyed or damaged critical infrastructure units and facilities attributed to disasters. *The decision regarding those elements of critical infrastructure to be included in the calculation will be left to the Member States and described in the accompanying metadata. Protective infrastructure and green infrastructure should be included where relevant.*
D-5 (compound)	Number of disruptions to basic services attributed to disasters.
D-6	Number of disruptions to educational services attributed to disasters.
D-7	Number of disruptions to health services attributed to disasters.
D-8	Number of disruptions to other basic services attributed to disasters. *The decision regarding those elements of basic services to be included in the calculation will be left to the Member States and described in the accompanying metadata.*

Global target E: Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.	
E-1	Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
E-2	Percentage of local governments that adopt and implement local disaster risk reduction strategies in line with national strategies. *Information should be provided on the appropriate levels of government below the national level with responsibility for disaster risk reduction.*

Global target F: Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.	
F-1	Total official international support, (official development assistance (ODA) plus other official flows), for national disaster risk reduction actions. *Reporting of the provision or receipt of international cooperation for disaster risk reduction shall be done in accordance with the modalities applied in respective countries. Recipient countries are encouraged to provide information on the estimated amount of national disaster risk reduction expenditure.*
F-2	Total official international support (ODA plus other official flows) for national disaster risk reduction actions provided by multilateral agencies.
F-3	Total official international support (ODA plus other official flows) for national disaster risk reduction actions provided bilaterally.
F-4	Total official international support (ODA plus other official flows) for the transfer and exchange of disaster risk reduction-related technology.
F-5	Number of international, regional and bilateral programmes and initiatives for the transfer and exchange of science, technology and innovation in disaster risk reduction for developing countries.
F-6	Total official international support (ODA plus other official flows) for disaster risk reduction capacity-building.
F-7	Number of international, regional and bilateral programmes and initiatives for disaster risk reduction-related capacity-building in developing countries.
F-8	Number of developing countries supported by international, regional and bilateral initiatives to strengthen their disaster risk reduction-related statistical capacity.

Global target G: Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.	
G-1 (compound G2-G5)	Number of countries that have multi-hazard early warning systems.
G-2	Number of countries that have multi-hazard monitoring and forecasting systems.
G-3	Number of people per 100,000 that are covered by early warning information through local governments or through national dissemination mechanisms.
G-4	Percentage of local governments having a plan to act on early warnings.
G-5	Number of countries that have accessible, understandable, usable and relevant disaster risk information and assessment available to the people at the national and local levels.
G-6	Percentage of population exposed to or at risk from disasters protected through pre-emptive evacuation following early warning. *Member States in a position to do so are encouraged to provide information on the number of evacuated people.*

B. Follow-up and operationalization of the indicators

20. In order to support Member States in the operationalization of the global indicators to measure progress towards the achievement of the global targets of the Sendai Framework and relevant targets of the Sustainable Development Goals, the United Nations Office for Disaster Risk Reduction is requested to undertake technical work and provide technical guidance to:

(a) Develop minimum standards and metadata for disaster-related data, statistics and analysis with the engagement of national government focal points, national disaster risk reduction offices, national statistical offices, the Department of Economic and Social Affairs and other relevant partners;

(b) Develop methodologies for the measurement of indicators and the processing of statistical data with relevant technical partners;

(c) Provide Member States with technical support, upon request, to conduct a review of data readiness with respect to the indicators in order to establish a baseline for monitoring and prepare for the first biennial cycle of review of the Sendai Framework;

(d) Develop technical guidance material for the testing and roll-out of the indicators and the web-based monitoring system of the Sendai Framework monitoring mechanism.

21. It is also recognized that the Global Platform for Disaster Risk Reduction and the Regional Platforms for Disaster Risk Reduction, supported by the Office, will play a critical role in validating biennial assessments of progress towards the achievement of the seven global targets of the Sendai Framework and relevant disaster risk-related targets of the Sustainable Development Goals. The role of national platforms will also be important.

22. While the global targets of the Sendai Framework do not explicitly call for data disaggregation, paragraph 19 (g) of the Sendai Framework does call for specific attention to factors such as income, sex, age and disability in disaster risk reduction. The collection of disaggregated data should be considered instrumental to the effective implementation of the Sendai Framework and relevant disaster risk-related targets of the Sustainable Development Goals.

23. At the same time, the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction, recognizing the different capacities of Member States with regard to data collection and reporting, noted that, in order to be considered global, indicators need to be usable by all Member States. While data disaggregation might be highly desirable, it was noted that it might not be immediately feasible across all Member States, and therefore could not be considered a requirement in relevant indicators. The working group encourages Member States to commence or, as appropriate, further enhance the collection of data on disaster loss disaggregated by income, sex, age and disability, with the engagement of the national statistical offices and in accordance with the Fundamental Principles of Official Statistics, and to start reporting disaggregated data. It also calls for actions under target F of the Sendai Framework to strengthen national capacities to do so.

24. The working group, when assessing the feasibility of indicators proposed for measuring progress towards the global targets of the Sendai Framework, identified relevant indicators for which internationally recognized methodologies are available but for which a significant number of countries currently do not collect the necessary data. Those indicators considered optional or aspirational could not be selected by the working group for global measurement and application. However, some Member States recommended that those indicators be applied at the national level by those countries that have the necessary data in order to enhance their assessment of progress. They also highlighted the importance of continuing further discussion on the implementation of the Sendai Framework and of providing additional information to the Office on other nationally identified relevant indicators related to disaster risk reduction, as appropriate.

25. The methodologies for measuring the indicators and the processing of statistical data, which will be provided as technical guidance by the Office, would allow for consistent measurement of progress towards the global targets across countries and over the duration of the Sendai Framework and Sustainable Development Goals. Countries may choose to use a national methodology or other methods of measurement and calculation. It is recommended that countries keep the metadata consistent if the methodology is changed.

V. Recommendations of the open-ended intergovernmental expert working group on terminology relating to disaster risk reduction

Affected

People who are affected, either directly or indirectly, by a hazardous event. Directly affected are those who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets. Indirectly affected are people who have suffered consequences, other than or in addition to direct effects, over time, due to disruption or changes in economy, critical infrastructure, basic services, commerce or work, or social, health and psychological consequences.

Annotation: People can be affected directly or indirectly. Affected people may experience short-term or long-term consequences to their lives, livelihoods or health and to their economic, physical, social, cultural and environmental assets. In addition, people who are missing or dead may be considered as directly affected.

Build back better

The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment.

Annotation: The term "societal" will not be interpreted as a political system of any country.

Building code

A set of ordinances or regulations and associated standards intended to regulate aspects of the design, construction, materials, alteration and occupancy of structures which are necessary to ensure human safety and welfare, including resistance to collapse and damage.

Annotation: Building codes can include both technical and functional standards. They should incorporate the lessons of international experience and should be tailored to national and local circumstances. A systematic regime of enforcement is a critical supporting requirement for the effective implementation of building codes.

Capacity

The combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience.

Annotation: Capacity may include infrastructure, institutions, human knowledge and skills, and collective attributes such as social relationships, leadership and management.

***Coping capacity** is the ability of people, organizations and systems, using available skills and resources, to manage adverse conditions, risk or disasters. The capacity to cope requires continuing awareness, resources and good management, both in normal times as well as during disasters or adverse conditions. Coping capacities contribute to the reduction of disaster risks.*

***Capacity assessment** is the process by which the capacity of a group, organization or society is reviewed against desired goals, where existing capacities are identified for maintenance or strengthening and capacity gaps are identified for further action.*

***Capacity development** is the process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals. It is a concept that extends the term of capacity-building to encompass all aspects of creating and sustaining capacity growth over time. It involves learning and various types of training, but also continuous efforts to develop institutions, political awareness, financial resources, technology systems and the wider enabling environment.*

Contingency planning

A management process that analyses disaster risks and establishes arrangements in advance to enable timely, effective and appropriate responses.

Annotation: Contingency planning results in organized and coordinated courses of action with clearly identified institutional roles and resources, information processes and operational arrangements for specific actors at times of need. Based on scenarios of possible emergency conditions or hazardous events, it allows key actors to envision, anticipate and solve problems that can arise during disasters. Contingency planning is an important part of overall preparedness. Contingency plans need to be regularly updated and exercised.

Critical infrastructure

The physical structures, facilities, networks and other assets which provide services that are essential to the social and economic functioning of a community or society

Disaster

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.

Annotations: The effect of the disaster can be immediate and localized, but is often widespread and could last for a long period of time. The effect may test or exceed the capacity of a community or society to cope using its own resources, and therefore may require assistance from external sources, which could include neighbouring jurisdictions, or those at the national or international levels.

***Emergency** is sometimes used interchangeably with the term disaster, as, for example, in the context of biological and technological hazards or health emergencies, which, however, can also relate to hazardous events that do not result in the serious disruption of the functioning of a community or society.*

***Disaster damage** occurs during and immediately after the disaster. This is usually measured in physical units (e.g., square meters of housing, kilometres of roads, etc.), and describes the total or partial destruction of physical assets, the disruption of basic services and damages to sources of livelihood in the affected area.*

***Disaster impact** is the total effect, including negative effects (e.g., economic losses) and positive effects (e.g., economic gains), of a hazardous event or a disaster. The term includes economic, human and environmental impacts, and may include death, injuries, disease and other negative effects on human physical, mental and social well-being.*

For the purpose of the scope of the Sendai Framework for Disaster Risk Reduction 2015-2030 (para. 15), the following terms are also considered:

- *Small-scale disaster: a type of disaster only affecting local communities which require assistance beyond the affected community.*
- *Large-scale disaster: a type of disaster affecting a society which requires national or international assistance.*
- *Frequent and infrequent disasters: depend on the probability of occurrence and the return period of a given hazard and its impacts. The impact of frequent disasters could be cumulative, or become chronic for a community or a society.*
- *A slow-onset disaster is defined as one that emerges gradually over time. Slow-onset disasters could be associated with, e.g., drought, desertification, sea-level rise, epidemic disease.*
- *A sudden-onset disaster is one triggered by a hazardous event that emerges quickly or unexpectedly. Sudden-onset disasters could be associated with, e.g., earthquake, volcanic eruption, flash flood, chemical explosion, critical infrastructure failure, transport accident.*

Disaster loss database

A set of systematically collected records about disaster occurrence, damages, losses and impacts, compliant with the Sendai Framework for Disaster Risk Reduction 2015-2030 monitoring minimum requirements.

Disaster management

The organization, planning and application of measures preparing for, responding to and recovering from disasters.

Annotation: Disaster management may not completely avert or eliminate the threats; it focuses on creating and implementing preparedness and other plans to decrease the impact of disasters and "build back better". Failure to create and apply a plan could lead to damage to life, assets and lost revenue.

***Emergency management** is also used, sometimes interchangeably, with the term disaster management, particularly in the context of biological and technological hazards and for health emergencies. While there is a large degree of overlap, an emergency can also relate to hazardous events that do not result in the serious disruption of the functioning of a community or society.*

Disaster risk

The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.

Annotation: The definition of disaster risk reflects the concept of hazardous events and disasters as the outcome of continuously present conditions of risk. Disaster risk comprises different types of potential losses which are often difficult to quantify. Nevertheless, with knowledge of the prevailing hazards and the patterns of population and socioeconomic development, disaster risks can be assessed and mapped, in broad terms at least.

It is important to consider the social and economic contexts in which disaster risks occur and that people do not necessarily share the same perceptions of risk and their underlying risk factors.

***Acceptable risk**, or tolerable risk, is therefore an important subterm; the extent to which a disaster risk is deemed acceptable or tolerable depends on existing social, economic, political, cultural, technical and environmental conditions. In engineering terms, acceptable risk is also used to assess and define the structural and non-structural measures that are needed in order to reduce possible harm to people, property, services and systems to a chosen tolerated level, according to codes or "accepted practice" which are based on known probabilities of hazards and other factors.*

***Residual risk** is the disaster risk that remains even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained. The presence of residual risk implies a continuing need to develop and support effective capacities for emergency services, preparedness, response and recovery, together with socioeconomic policies such as safety nets and risk transfer mechanisms, as part of a holistic approach.*

Disaster risk assessment

A qualitative or quantitative approach to determine the nature and extent of disaster risk by analysing potential hazards and evaluating existing conditions of exposure and vulnerability that together could harm people, property, services, livelihoods and the environment on which they depend.

Annotation: Disaster risk assessments include the identification of hazards, a review of the technical characteristics of hazards such as their location, intensity, frequency and probability, the analysis of exposure and vulnerability, including the physical, social, health, environmental and economic dimensions, and the evaluation of the effectiveness of prevailing and alternative coping capacities with respect to likely risk scenarios.

Disaster risk governance

The system of institutions, mechanisms, policy and legal frameworks and other arrangements to guide, coordinate and oversee disaster risk reduction and related areas of policy.

Annotation: Good governance needs to be transparent, inclusive, collective and efficient to reduce existing disaster risks and avoid creating new ones.

Disaster risk information

Comprehensive information on all dimensions of disaster risk, including hazards, exposure, vulnerability and capacity, related to persons, communities, organizations and countries and their assets.

Annotation: Disaster risk information includes all studies, information and mapping required to understand the disaster risk drivers and underlying risk factors.

Disaster risk management

Disaster risk management is the application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses.

Annotation: Disaster risk management actions can be distinguished between prospective disaster risk management, corrective disaster risk management and compensatory disaster risk management, also called residual risk management.

***Prospective disaster risk management** activities address and seek to avoid the development of new or increased disaster risks. They focus on addressing disaster risks that may develop in future if disaster risk reduction policies are not put in place. Examples are better land-use planning or disaster-resistant water supply systems.*

***Corrective disaster risk management** activities address and seek to remove or reduce disaster risks which are already present and which need to be managed and reduced now. Examples are the retrofitting of critical infrastructure or the relocation of exposed populations or assets.*

Compensatory disaster risk management *activities strengthen the social and economic resilience of individuals and societies in the face of residual risk that cannot be effectively reduced. They include preparedness, response and recovery activities, but also a mix of different financing instruments, such as national contingency funds, contingent credit, insurance and reinsurance and social safety nets.*

Community-based disaster risk management *promotes the involvement of potentially affected communities in disaster risk management at the local level. This includes community assessments of hazards, vulnerabilities and capacities, and their involvement in planning, implementation, monitoring and evaluation of local action for disaster risk reduction.*

Local and indigenous peoples' approach to disaster risk management *is the recognition and use of traditional, indigenous and local knowledge and practices to complement scientific knowledge in disaster risk assessments and for the planning and implementation of local disaster risk management.*

Disaster risk management *plans set out the goals and specific objectives for reducing disaster risks together with related actions to accomplish these objectives. They should be guided by the Sendai Framework for Disaster Risk Reduction 2015-2030 and considered and coordinated within relevant development plans, resource allocations and programme activities. National-level plans need to be specific to each level of administrative responsibility and adapted to the different social and geographical circumstances that are present. The time frame and responsibilities for implementation and the sources of funding should be specified in the plan. Linkages to sustainable development and climate change adaptation plans should be made where possible.*

Disaster risk reduction

Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development.

Annotation: Disaster risk reduction is the policy objective of disaster risk management, and its goals and objectives are defined in disaster risk reduction strategies and plans.

Disaster risk reduction strategies and policies *define goals and objectives across different timescales and with concrete targets, indicators and time frames. In line with the Sendai Framework for Disaster Risk Reduction 2015-2030, these should be aimed at preventing the creation of disaster risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience.*

A global, agreed policy of disaster risk reduction is set out in the United Nations endorsed Sendai Framework for Disaster Risk Reduction 2015-2030, adopted in March 2015, whose expected outcome over the next 15 years is: "The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries".

Early warning system

An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events.

Annotations: Effective "end-to-end" and "people-centred" early warning systems may include four interrelated key elements: (1) disaster risk knowledge based on the systematic collection of data and disaster risk assessments; (2) detection, monitoring, analysis and forecasting of the hazards and possible consequences; (3) dissemination and communication, by an official source, of authoritative, timely, accurate and actionable warnings and associated information on likelihood and impact; and (4) preparedness at all levels to respond to the warnings received. These four interrelated components need to be coordinated within and across sectors and multiple levels for the system to work effectively and to include a feedback mechanism for continuous improvement. Failure in one component or a lack of coordination across them could lead to the failure of the whole system.

***Multi-hazard early warning systems** address several hazards and/or impacts of similar or different type in contexts where hazardous events may occur alone, simultaneously, cascadingly or cumulatively over time, and taking into account the potential interrelated effects. A multi-hazard early warning system with the ability to warn of one or more hazards increases the efficiency and consistency of warnings through coordinated and compatible mechanisms and capacities, involving multiple disciplines for updated and accurate hazards identification and monitoring for multiple hazards.*

Economic loss

Total economic impact that consists of direct economic loss and indirect economic loss.

Direct economic loss: the monetary value of total or partial destruction of physical assets existing in the affected area. Direct economic loss is nearly equivalent to physical damage.

Indirect economic loss: a decline in economic value added as a consequence of direct economic loss and/or human and environmental impacts.

Annotations: Examples of physical assets that are the basis for calculating direct economic loss include homes, schools, hospitals, commercial and governmental buildings, transport, energy, telecommunications infrastructures and other infrastructure; business assets and industrial plants; and production such as crops, livestock and production infrastructure. They may also encompass environmental assets and cultural heritage.

***Direct economic losses** usually happen during the event or within the first few hours after the event and are often assessed soon after the event to estimate recovery cost and claim insurance payments. These are tangible and relatively easy to measure.*

Indirect economic loss *includes microeconomic impacts (e.g., revenue declines owing to business interruption), mesoeconomic impacts (e.g., revenue declines owing to impacts on natural assets, interruptions to supply chains or temporary unemployment) and macroeconomic impacts (e.g., price increases, increases in government debt, negative impact on stock market prices and decline in GDP). Indirect losses can occur inside or outside of the hazard area and often have a time lag. As a result they may be intangible or difficult to measure.*

Evacuation

Moving people and assets temporarily to safer places before, during or after the occurrence of a hazardous event in order to protect them.

Annotations: Evacuation plans refer to the arrangements established in advance to enable the moving of people and assets temporarily to safer places before, during or after the occurrence of a hazardous event. Evacuation plans may include plans for return of evacuees and options to shelter in place.

Exposure

The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas.

Annotation: Measures of exposure can include the number of people or types of assets in an area. These can be combined with the specific vulnerability and capacity of the exposed elements to any particular hazard to estimate the quantitative risks associated with that hazard in the area of interest.

Extensive disaster risk

The risk of low-severity, high-frequency hazardous events and disasters, mainly but not exclusively associated with highly localized hazards.

Annotation: Extensive disaster risk is usually high where communities are exposed to, and vulnerable to, recurring localized floods, landslides, storms or drought. Extensive disaster risk is often exacerbated by poverty, urbanization and environmental degradation.

Hazard

A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

*Annotations: Hazards may be natural, anthropogenic or socionatural in origin. **Natural hazards** are predominantly associated with natural processes and phenomena. **Anthropogenic hazards**, or human-induced hazards, are induced entirely or predominantly by human activities and choices. This term does not include the occurrence or risk of armed conflicts and other situations of social instability or tension which are subject to international humanitarian law and national legislation. Several hazards are **socionatural**, in that they are associated with a combination of natural and anthropogenic factors, including environmental degradation and climate change.*

Hazards may be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity or magnitude, frequency and probability. Biological hazards are also defined by their infectiousness or toxicity, or other characteristics of the pathogen such as dose-response, incubation period, case fatality rate and estimation of the pathogen for transmission.

***Multi-hazard** means (1) the selection of multiple major hazards that the country faces, and (2) the specific contexts where hazardous events may occur simultaneously, cascadingly or cumulatively over time, and taking into account the potential interrelated effects.*

Hazards include (as mentioned in the Sendai Framework for Disaster Risk Reduction 2015-2030, and listed in alphabetical order) biological, environmental, geological, hydrometeorological and technological processes and phenomena.

***Biological hazards** are of organic origin or conveyed by biological vectors, including pathogenic microorganisms, toxins and bioactive substances. Examples are bacteria, viruses or parasites, as well as venomous wildlife and insects, poisonous plants and mosquitoes carrying disease-causing agents.*

***Environmental hazards** may include chemical, natural and biological hazards. They can be created by environmental degradation or physical or chemical pollution in the air, water and soil. However, many of the processes and phenomena that fall into this category may be termed drivers of hazard and risk rather than hazards in themselves, such as soil degradation, deforestation, loss of biodiversity, salinization and sea-level rise.*

***Geological or geophysical hazards** originate from internal earth processes. Examples are earthquakes, volcanic activity and emissions, and related geophysical processes such as mass movements, landslides, rockslides, surface collapses and debris or mud flows. Hydrometeorological factors are important contributors to some of these processes. Tsunamis are difficult to categorize; although they are triggered by undersea earthquakes and other geological events, they essentially become an oceanic process that is manifested as a coastal water-related hazard.*

***Hydrometeorological hazards** are of atmospheric, hydrological or oceanographic origin. Examples are tropical cyclones (also known as typhoons and hurricanes); floods, including flash floods; drought; heatwaves and cold spells; and coastal storm surges. Hydrometeorological conditions may also be a factor in other hazards such as landslides, wildland fires, locust plagues, epidemics and in the transport and dispersal of toxic substances and volcanic eruption material.*

***Technological hazards** originate from technological or industrial conditions, dangerous procedures, infrastructure failures or specific human activities. Examples include industrial pollution, nuclear radiation, toxic wastes, dam failures, transport accidents, factory explosions, fires and chemical spills. Technological hazards also may arise directly as a result of the impacts of a natural hazard event.*

Hazardous event

The manifestation of a hazard in a particular place during a particular period of time.

Annotation: Severe hazardous events can lead to a disaster as a result of the combination of hazard occurrence and other risk factors.

Intensive disaster risk

The risk of high-severity, mid- to low-frequency disasters, mainly associated with major hazards.

Annotation: Intensive disaster risk is mainly a characteristic of large cities or densely populated areas that are not only exposed to intense hazards such as strong earthquakes, active volcanoes, heavy floods, tsunamis or major storms but also have high levels of vulnerability to these hazards.

Mitigation

The lessening or minimizing of the adverse impacts of a hazardous event.

Annotation: The adverse impacts of hazards, in particular natural hazards, often cannot be prevented fully, but their scale or severity can be substantially lessened by various strategies and actions. Mitigation measures include engineering techniques and hazard-resistant construction as well as improved environmental and social policies and public awareness. It should be noted that, in climate change policy, "mitigation" is defined differently, and is the term used for the reduction of greenhouse gas emissions that are the source of climate change.

National platform for disaster risk reduction

A generic term for national mechanisms for coordination and policy guidance on disaster risk reduction that are multisectoral and interdisciplinary in nature, with public, private and civil society participation involving all concerned entities within a country.

Annotations: Effective government coordination forums are composed of relevant stakeholders at national and local levels and have a designated national focal point. For such mechanisms to have a strong foundation in national institutional frameworks, further key elements and responsibilities should be established through laws, regulations, standards and procedures, including: clearly assigned responsibilities and authority; building awareness and knowledge of disaster risk through the sharing and dissemination of non-sensitive disaster risk information and data; contributing to and coordinating reports on local and national disaster risk; coordinating public awareness campaigns on disaster risk; facilitating and supporting local multisectoral cooperation (e.g., among local governments); and contributing to the determination of and reporting on national and local disaster risk management plans and all policies relevant for disaster risk management.

Preparedness

The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters.

Annotation: Preparedness action is carried out within the context of disaster risk management and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response to sustained recovery.

Preparedness is based on a sound analysis of disaster risks and good linkages with early warning systems, and includes such activities as contingency planning, the stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation and public information, and associated training and field exercises. These must be supported by formal institutional, legal and budgetary capacities. The related term "readiness" describes the ability to quickly and appropriately respond when required.

*A **preparedness plan** establishes arrangements in advance to enable timely, effective and appropriate responses to specific potential hazardous events or emerging disaster situations that might threaten society or the environment.*

Prevention

Activities and measures to avoid existing and new disaster risks.

Annotations: Prevention (i.e., disaster prevention) expresses the concept and intention to completely avoid potential adverse impacts of hazardous events. While certain disaster risks cannot be eliminated, prevention aims at reducing vulnerability and exposure in such contexts where, as a result, the risk of disaster is removed. Examples include dams or embankments that eliminate flood risks, land-use regulations that do not permit any settlement in high-risk zones, seismic engineering designs that ensure the survival and function of a critical building in any likely earthquake and immunization against vaccine-preventable diseases. Prevention measures can also be taken during or after a hazardous event or disaster to prevent secondary hazards or their consequences, such as measures to prevent the contamination of water.

Reconstruction

The medium- and long-term rebuilding and sustainable restoration of resilient critical infrastructures, services, housing, facilities and livelihoods required for the full functioning of a community or a society affected by a disaster, aligning with the principles of sustainable development and "build back better", to avoid or reduce future disaster risk.

Recovery

The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and "build back better", to avoid or reduce future disaster risk.

Rehabilitation

The restoration of basic services and facilities for the functioning of a community or a society affected by a disaster.

Residual risk

The disaster risk that remains in unmanaged form, even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained.

Annotation: The presence of residual risk implies a continuing need to develop and support effective capacities for emergency services, preparedness, response and recovery, together with socioeconomic policies such as safety nets and risk transfer mechanisms, as part of a holistic approach.

Resilience

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.

Response

Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Annotation: Disaster response is predominantly focused on immediate and short-term needs and is sometimes called disaster relief. Effective, efficient and timely response relies on disaster risk-informed preparedness measures, including the development of the response capacities of individuals, communities, organizations, countries and the international community.

The institutional elements of response often include the provision of emergency services and public assistance by public and private sectors and community sectors, as well as community and volunteer participation. "Emergency services" are a critical set of specialized agencies that have specific responsibilities in serving and protecting people and property in emergency and disaster situations. They include civil protection authorities and police and fire services, among many others. The division between the response stage and the subsequent recovery stage is not clear-cut. Some response actions, such as the supply of temporary housing and water supplies, may extend well into the recovery stage.

Retrofitting

Reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

Annotation: Retrofitting requires consideration of the design and function of the structure, the stresses that the structure may be subject to from particular hazards or hazard scenarios and the practicality and costs of different retrofitting options. Examples of retrofitting include adding bracing to stiffen walls, reinforcing pillars, adding steel ties between walls and roofs, installing shutters on windows and improving the protection of important facilities and equipment.

Risk transfer

The process of formally or informally shifting the financial consequences of particular risks from one party to another, whereby a household, community, enterprise or State authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party.

Annotation: Insurance is a well-known form of risk transfer, where coverage of a risk is obtained from an insurer in exchange for ongoing premiums paid to the insurer. Risk transfer can occur informally within family and community networks where there are reciprocal expectations of mutual aid by means of gifts or credit, as well as formally, wherein governments, insurers, multilateral banks and other large risk-bearing entities establish mechanisms to help cope with losses in major events. Such mechanisms include insurance and reinsurance contracts, catastrophe bonds, contingent credit facilities and reserve funds, where the costs are covered by premiums, investor contributions, interest rates and past savings, respectively.

Structural and non-structural measures

Structural measures are any physical construction to reduce or avoid possible impacts of hazards, or the application of engineering techniques or technology to achieve hazard resistance and resilience in structures or systems. Non-structural measures are measures not involving physical construction which use knowledge, practice or agreement to reduce disaster risks and impacts, in particular through policies and laws, public awareness raising, training and education.

Annotation: Common structural measures for disaster risk reduction include dams, flood levies, ocean wave barriers, earthquake-resistant construction and evacuation shelters. Common non-structural measures include building codes, land-use planning laws and their enforcement, research and assessment, information resources and public awareness programmes. Note that in civil and structural engineering, the term "structural" is used in a more restricted sense to mean just the load-bearing structure, and other parts such as wall cladding and interior fittings are termed "non-structural".

Underlying disaster risk drivers

Processes or conditions, often development-related, that influence the level of disaster risk by increasing levels of exposure and vulnerability or reducing capacity.

Annotations: Underlying disaster risk drivers — also referred to as underlying disaster risk factors — include poverty and inequality, climate change and variability, unplanned and rapid urbanization and the lack of disaster risk considerations in land management and environmental and natural resource management, as well as compounding factors such as demographic change, non-disaster risk-informed policies, the lack of regulations and incentives for private disaster risk reduction investment, complex supply chains, the limited availability of technology, unsustainable uses of natural resources, declining ecosystems, pandemics and epidemics.

Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.

Annotation: For positive factors which increase the ability of people to cope with hazards, see also the definitions of "Capacity" and "Coping capacity".

Annex

Attendance

A. Member States and observers

Delegation	*Representatives*
Afghanistan	S. Nooruddin Hashemi
	Hamed Mohammadi
	Nazir Ahmad Foshanji
Argentina	Rubén Pablo Leonardini
	Alfredo Eduardo Ladillinsky
	Laura Alejandra Leff
	Silvia Graciela Quiroga
	Jessica Melina Viand
	Maria Julia Chasco
Armenia	Hovhannes Yemishyan
Australia	Steve Darvill
	Leonie Oates-Mercier
	Martine Woolf
	Leesa Carson
Azerbaijan	Yusif Huseynov
Bangladesh	Md. Golam Mostofa
	Md. Alimuzzaman
	Mohammad Manirul Islam
Barbados	Kerry Hinds
Belarus	Yuri Nikolaichik
	Leanid Dziadul
	Raman Frantsikau
Bhutan	Sonam Deki
	Pema Thinley

Delegation	*Representatives*
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	René Oscar Cabrera Coca
	Natalia Pacheco Rodríguez
	Jorge Valero
	Rebeca Sanchez Bello
	Arline Diaz Mendoza
Botswana	Nkosiyabo Freeze Moyo
	Moagi Baleseng
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	Lucianara Andrade Fonseca
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Bulgaria	Boryana Argirova
	Stoyanka Stoykova
Burkina Faso	Boubacar Milougou
	Ypene Florent Bakouan
	Denis Kabore
	Eliele Nadine Traore Bazie
Burundi	Antoine Ntemako
	Anicet Nibaruta
Cambodia	Ma Norith
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	John Gazo
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Chile	Bernardo Cecilio Delfín Castro Salas
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	Patricio Guesalaga
China	Peijun Shi
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Colombia	Gerardo Jaramillo Montenegro
	Juan Carlos Moreno Gutierrez
	Carlos Ivan Marquez
Comoros	Fatima Alfeine
	Issoufa Ali Fouad
Congo	Alphonse Stanis Gankia
	Edmond Paul Makimouha
Costa Rica	Carlos Alberto Picado Rojas
Cuba	Anayansi Camejo
	Claudia Perez Alvarez
	Alejandro Gonzalez Behmaras
Czechia	Marie Adamkova
	Michal Dvořák
	Pavel Danihelka
	Jan Danhelka
Democratic Republic of the Congo	Jean Kamwita Wa Kamwita
	Jean Kitambala K'onganga
	Barherenduba Kompanyi
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	Katherine Urbáez
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	Elvio J. Martínez

Delegation	*Representatives*
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	Evelyn Jaramillo Bernita
	Jaime Davalos Suarez
	Monica Martinez
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	Mohamed Nasr
El Salvador	Joaquin Maza Martelli
	Jorge Antonio Melendez
	Ruben Armando Escalante Hasbun
Ethiopia	Tareke Aga
	Negash Kebret Botora
	Yanit Abera Habtemariam
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	Taito Vainio
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	Waqar Ud Din
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Philippines	Remedios Soriano Endencia
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	Vivian R. Ilarina
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	Grzegorz Małachowski
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	Ahmad Abdulla Al-Abdullah
	Khalid Abdelaziz Al-Mohannadi
	Abdulla Saad A. Al-Kaabi
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Russian Federation	Irena Oltyan
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	Rui Manuel Trindade Séca
	Alcinio Cravid e Silva
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	Osamah Abdulaziz Naitah
	Abdullah Mouiz Al-Shahri
	Abdulaziz Moussa Aljohani
	Hani Mahmoud Zahran
	Khalid Hussein Al-Ahhmadi
	Abdulaziz Abdulrahmane Al-Howaish
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Serbia	Sandra Nedeljkovic
	Ivan Baras
Seychelles	Paul Raymond Jean Labaleine
Sierra Leone	Mary Mye-Kamara
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	Betty Kita Scopas
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	Samantha Jayasuriya
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	Idris Salem Al Hassan
	Ahmed Mohammed Adam
	Mohammed Abdal Hamid
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	Ewa Nillson
	Petronella Norell
	Janet Edwards
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	Ariadna Pop
	Benjamin Rothen
	Alexandre Roth
	Markus Zimmermann
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	Phanpob Plangprayoon
	Parinthorn Apinyanunt
	Kanokporn Chucherd
	Tavida Kamolvej
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	Akintola Severin Nelson Akibode
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	Afo Ousmane Salifou
Tonga	Leveni Aho
Trinidad and Tobago	Stephen Ramroop

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	Yeliz Teker
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	Catherine Ahimbisibwe
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	Petr Kropotov
	Viacheslav Anishchenko
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	Fatima Yusuf Al Suwaidi
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	Abdullatif Fakhfakh
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State of Palestine	Omar Awad Ala
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European Commission	Thomas De Lannoy
	Peter Sorensen
	Carl Hallegard
	Ian Clark
	Joachime Nason
	Kaisa Mitt
	Tom De Groeve

B. Relevant stakeholders

Organization	*Representatives*
Action Contre La Faim, France	Maryse Vercoutère
ActionAid, Bangladesh	A. M. Nasir Uddin
Advanced Planning and Organization World Institute	Antonio De Rosenzweig
Asian Disaster Preparedness Center	Alexander Barrett
Asian Disaster Reduction Centre	Kyoko Kondo
Beijing Normal University	Qian Ye
Cameroon League for Development	James Mbungyuh Tseyah
CARE France	Guillaume Devars
CARE Nederland	Okke Bouwman
	Anne Te Molder

Organization	*Representatives*
CBM International (formerly Christian Blind Mission)	Lars Bosselmann
	Rene Morfaw Lekeanyi
	Gordon Rattray
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Centre for Human Rights and Climate Change Research	Omoyemen Lucia Odigie-Emmanuel
Christian Children's Fund of Canada, Ethiopia	Feleke Tadele Kelkil
Community Research & Development Organization	Imran Inam
Consortium for People's Development — Disaster Response	Yodhim Gudel Dela Rosa
Cooperation Council for the Arab States of the Gulf, Emergency Management Center, Kuwait	Eissa Al Khudhair
Deltares	Lydia Cumiskey
Disaster Reduction Nepal	Shraban Kumar Sop
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Disaster Risk Management Centre, Lebanon	Fadi Hamdan
Emergency Response Consulting	Esteban Paredes
Environmental Hydraulics Institute	Ignacio Aguirre Ayerbe
Flinders University	Lidia Mayner
Fondazione Eni Enrico Mattei	Jaroslav Mysiak
Food and Agriculture Organization of the United Nations	Niccolo Lombardi
	Wirya Khim
Forum For Nature Protection	Madhu Thapa
Four Paws International	Jackson Zee
Fundamental Human Rights & Rural Development Association	Mohammad Hassan Mashori
Global Network of Civil Society Organizations for Disaster Reduction	Marcus Oxley
	Lucy Pearson
Global South Initiative	Hansha Raj Sanjyal

Organization	*Representatives*
HelpAge International	Clodagh Byrne
Huairou Commission	Sandra Schilen
Institute for Disaster Management and Reconstruction, Sichuan University and Hong Kong Polytechnic University	Linsheng Gu
Internal Displacement Monitoring Centre	Justin Ginnetti
	Michelle Yonetani
International Council on Monuments and Sites, International Committee on Risk Preparedness	Chris Marrion
International Disability Alliance	Alexandre Cote
	Tchaurea Fleury
	Marine Leydet
International Emergency Management Society	Joseph Pollack
International Federation of Red Cross and Red Crescent Societies	Paulo Cavaleri
	Chang Hun Choe
	Tessa Kelly
International Longevity Centre Global Alliance, NGO Committee on Ageing, Geneva	Silvia Perel-Levin
Jeunes Volontaires de Grands Lacs pour l'Environnement	Prince Wilondja Wabilima
Jeunes Volontaires pour l'Environment Nepal (JVE-NEPAL)	Dineshwar Chaudhary
Joint United Nations Environment Programme/ Office for the Coordination of Humanitarian Affairs Environment Unit	Emilia Wahlstrom
Kathak Academy Bangladesh	Abul Kashem Sheikh
King Abdulaziz City for Science and Technology	Khalid Alahmadi
Land and Human to Advocate Progress	Ziyad Al-Alawneh
LEAD Pakistan	Nadeem Ahmad
Mainstreaming Adaptation, Resilience and Sustainability into Development	Aloysius (Loy) Rego

Organization	*Representatives*
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	Brian Linneker
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National University of Sciences and Technology	Naeem Shahzad
ONG Inclusiva	Carlos Kaiser
Organization for Economic Cooperation and Development	Teresa Deubelli
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Overseas Development Institute	Emma Lovell
Paribartan Nepal	Karunakar Ghimire
Practical Action	Colin McQuistan
Projonma Academy	Mohammad Golam Mostafa
	Mohammad Shahidur Rahman
Risk Management Solutions	Julia Hall
RMSI	Amit Anand
Sancor Cooperativa de Seguros Limitada	Ruben Pablo Leonardini
Scientific and Technical Advisory Group	Virginia Murray
Standing Conference of Towns and Municipalities of Serbia	Darko Drndic
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United Nations, children and youth major group, disaster risk reduction working group	Moa Herrgard
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United Nations Development Programme	Francis Matheka

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United Nations Development Programme, Haiti	Jean Max Gabriel
	Marie Katleen Mompoint
United Nations Development Programme, Sudan	Mohamed Rajab
United Nations Economic Commission for Europe	Michael Nagy
United Nations Educational, Scientific and Cultural Organization, France	Jair Torres
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United Nations Environment Programme	Sandra Averous Monnery
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United Nations University, Munich Climate Insurance Initiative	Kehinde Balogun
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Urban Health Resource Center Nepal	Babu Ram Gautam
Women's Environment and Development Organization	Leah Kimber
World Animal Protection	Amy Bradley
	Rosemary Forest
	Arjan Van Houwelingen
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